

SEQUENCE LISTING

<110> Hepler, William T.
 Jiang, Yuqiu
 Pyle, Ruth A.
 Xu, Jiangchun

<120> COMPOSITIONS AND METHODS FOR THE THERAPY
 AND DIAGNOSIS OF COLON CANCER

<130> 210121.550

<140> US

<141> 2001-08-07

<160> 85

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 40

<223> Xaa = Any Amino Acid

<400> 1

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Gly	Ser	Ala	Gln	Arg	Val	Glu	Tyr	Lys	Lys	Leu	Asn	Cys	Val	Asn	Thr
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Trp	Lys	Thr	Thr	Val	Leu	Arg	Xaa	Pro	Ser	His					
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<210> 2

<211> 87

<212> PRT

<213> Homo sapiens

<400> 2

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Gly	Thr	Ser	Pro	Arg	Gln	Met	Met	Ala	Pro	His	Pro	Leu	Cys	Phe	Leu
			20					25					30		
Thr	Thr	Gln	Val	Thr	Tyr	Val	Trp	Leu	Pro	Val	Arg	Lys	Leu	Pro	Phe
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<210>	5
<211>	58
<212>	PRT

[illegible]

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Met Phe Gly Glu Ile Pro Met Glu Lys Arg Glu Thr Cys Arg Arg Thr
1 5 10 15
Ser Asn Lys Val Asn Val His Ala Gln Gly Leu Leu Lys Phe Gln Cys
20 25 30
Val Asn Phe Leu Leu Ala Tyr Thr Lys Ile Lys
35 40

<400> 9															
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1				5					10					15	
Arg	Thr	Ala	Ser	Ser	Ser	Ser	Pro	Leu	Cys	Thr	Ala	Ala	Glu	Gly	Pro
			20					25					30		
Ser	Leu	Gly	Leu	Gly	Thr	Leu	Arg	Gly	Glu	Asn	Glu	Ala	Ile	Arg	His
		35					40					45			
Pro	Leu	Gly	Pro	Cys	Phe	Gln	Val	Ser	Leu	Ser	Pro	Leu	Pro	Ala	Phe
	50					55					60				
Phe	Pro	Ala	Leu	Ser	Pro	Lys	Leu	Pro	Pro	Gly	Arg	Glu	Lys	Arg	Pro
65					70					75					80
Gly	Ala	Lys	Asn	Glu	Pro	Phe	Ser	Ser	Thr						
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<220>  
<221> VARIANT  
<222> 36, 42, 48  
<223> Xaa = Any Amino Acid
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Leu Leu Leu Leu Ile Leu Lys Leu Cys Leu Gln Gln Arg Gly Arg Gly
 20                25                30
Ser Cys Arg Xaa Ile Pro Gly Pro Gly Xaa Glu Met Pro Asn Leu Xaa
 35                40                45
Tyr Leu Thr Glu Gly Leu
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<210> 11
 <211> 566
 <212> DNA
 <213> Homo sapiens

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 cgaaaaaaac tctacctctc tataactaat tccctacaaa tctccttaat tataacattc 180
 acagccacag aactaatcat attttatatc ttcttcgaaa ccacacttat cccacacctg 240
 gctatcatca cccgatgagg caaccagcca gaacgcctga acgcaggcac atacttccta 300
 ttctacaccc tagtaggctc ccttccccta ctcatcgcac taatttacac tcacaacacc 360
 ctaggctcac taaacattct actactcact ctactgccc aagaactatc aaactcctga 420
 gccacaact taatatgact agcttacaca atagctttta tagtaaagat acctctttac 480
 ggactccact tatgactccc taaagcccat gtcgaagccc ccatcgctgg gtcaatagta 540
 cctcgggccgc gaccacgcta agggcg 566

<210> 12
 <211> 517
 <212> DNA
 <213> Homo sapiens

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 cagagaccat agtgtagatt ttacaaaatc actttttaaa atctctgtat tgtgctcctc 180
 aaatacctag agccagtctt tgcataaaat atcacagctt tatctataac cttaaaattc 240
 tgcagcagcc taaagatatg gataagatat accaccactt gctattctga aatatatcta 300
 ttaccatatc caacctaatg atagtatcta aaaaattcctt tcttccatag gaagtctctg 360
 acaagctgtt attcatttcc ttgacgttaa aagaatctgg ggccaacatt tgtattttat 420
 cagaaaaaaa taaaaaaaaa gtttacctac catgttcata ttaagaacaa tgtctataca 480
 agtcagttgt acctcgggcg cgaccacgct aaggcg 517

<210> 13
 <211> 411
 <212> DNA
 <213> Homo sapiens

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 agtttcccaa aaaaattatt tagaaggcat tatgttatta gttaaagaga gcactgtata 180
 gaactgttcc tattttctgc acttgccatt ccagctgcct ccactgtcca taccacctc 240
 attcatctg tcacagaagg caggaaaact gggaacttta ccaaagtagc actcagcctg 300
 agaggcctgt ataactcatg ttttcaaact aaattcactt aaaaattaaa aagcagaatt 360
 gaatatttta agcagcctca gtacctgccc gggcgggcgc tcgaaagggc g 411

<210> 14
 <211> 387
 <212> DNA
 <213> Homo sapiens

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 TGACTCCTAC
 CCCTCACAAT
 CATGGCAAGC
 CAACGCCACT
 TATCCAGTGA
 ACCACTATCA
 CGAAAAAAC
 TCTACCTCTC
 TATACTAATC
 TCCCTACAAA
 TCTCCTTAAT
 TATAACATTC
 ACAGCCACAG
 AACTAATCAT
 ATTTTATATC
 TTCTTCGAAA
 CCACACTTAT
 CCCCACCTTG
 GCTATCATCA
 CCCGATGAGG
 CAACCAGCCA
 GAACGCCTGA
 ACGCAGGCAC
 ATACTTCCTA
 TTCTACACCC
 TAGTAGGCTC
 CCTTCCCCTA
 CTCATCGCAC
 TAATTTACAC
 TCACAACACC
 CTAGGCTCAC
 TAAACATTCT
 ACTACTCACT
 CTCACTGCC
 AAGAACTATC
 AAACTCCTGA
 GCCACAACCT
 TAATATGACT
 AGCTTACACA
 ATAGCTTTTA
 TAGTAAAGAT
 ACCTCTTTAC
 GGACTCCACT
 TATGACTCCC
 TAAAGCCCAT
 GTCGAAGCCC
 CCATCGCTGG
 GTCAATAGTA
 CCTCGGGCCG
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<210> 15
<211> 524
<212> DNA
<213> Homo sapiens
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<400>	15						
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tgcatttagg	aaatgatttt	gctttcctta	aatagttcga	aggcttgaaa	ataaactttt	180	
tttttgcat	tcttttagaa	tgtttggtca	ttaacaactt	ttaaccttat	cttcctcttc	240	
tccttagccc	ttaacagacc	aagtccattc	tatttgga	taacaagaac	ttgatcagat	300	
tattaaatct	tggaaacctc	atttttacct	tataaagtgt	taagtttcac	gtgcatattc	360	
tcttacaat	gtagtataaa	tgttatggat	agatataagg	aatattggc	atagtatagg	420	
taattagtga	aaagacacaa	cttcacaaaa	cacaataaaa	gataaacatg	aaactataac	480	
actacttaaa	aatattacc	tcggcgcgga	ccacgctaag	ggcg		524	

<400>	16						
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agtctgtccc	caccttgtcg	tcctccacca	cacactgaat	ctgtagcttc	cggataccgt	180	
agcccacggg	caccagcttg	gaagccccc	agaccagccc	gtccagctgg	atagagcgca	240	
cacaggcctc	cagctgggcc	atgtccgtct	catcatccca	aggcttgaca	tccagcagga	300	
tggaggactt	ggccaccagt	gcaggtttct	tggccttctt	ctccgcgtac	ctcggccgcg	360	
accacgaagg	gcg					373	

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<400> 17
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ctgcgtatgg ccatacagcag acagtccatt tataccactg gacaaagatt gggaggaacc 120
agcccaagac agatgatggc tccacacca ctgtgcttcc tgactactca agtgacctac 180
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```

gtgtggcttc cagtcaggaa actaccatth aactttctgc tcagcccttt catggctcag 240
gttggtggga tgatgccact gtcctaaacc cgaaggcaag ggagcttccc aggcctcagc 300
agcagttcct ggggtggcact gtcccatga tctgaagcag acatgaaatt acaatacgc 360
tttattcact catctcaaga aagctggctg gcccaagcct aaaaggccca taccaaaaaa 420
aaaaaaaaa aaaaaaaaaa cttgtacctc ggccgcgacc acgctaaggg cg 472

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<210> 18
<211> 612
<212> DNA
<213> Homo sapiens

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<400> 18
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ttactattat gacacaaaca cagggaaga gggcaacta gacattgtaa tgcataagat 120
gcaggaaaaa gtgcagagca ttaactataa cccttttgac cagaaacttt atgtctataa 180
cgatggttac cttctgaatt atgatctttc tgtcttcgag aagccccagt aagctgttta 240
ggagttaggg tgaaagagaa aatgtttgtt gaaaaaatag tcttctccac ttacttagat 300
atctgcaggg gtgtctaaaa gtgtgttcat tttgcagcaa tgtttaggtg catagtctta 360
ccacactaga gatctaggac atttgtcttg atttggtgag ttctcttggg aatcatctgc 420
ctcttcaggg gcattttgca ataaagtcta tctagggagg gattgtcaga ggtctagggg 480
cactgtgggc ctagtgaagc ctactgtgag gaggcctcac tagaagcctt aaattagga 540
ttaaggaaact taaaactcag tatggcgtct agggattctt tgtacctgcc cgggcccggc 600
ctcgaagggg cg 612

```

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<210> 19
<211> 547
<212> DNA
<213> Homo sapiens

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<400> 19
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ttgtttcatg atttctcctc tctctctgat taaggcgttt atagaaaaaa gaactgaata 180
tatgaattcg gtcagcgtct tccttcttca gtttttcaag caccaagtat ttcaaataaa 240
agtctataat aacatcattt aaaaattctc cttcatttag acagtgcagg tcctcattgg 300
taacagagat gcctccctta gctggagggtg gtggatatac tatcaacttt tctactgggc 360
caatgaagat ggtgtggttt tctccagttt cttctctctc atcaaaaaac tgaaattctt 420
gtttgcttct aagttgtatt ttagattcaa atgatacagt ttttaattttg ttttcttttt 480
gccacaact tcctttgatg ctctcttcat aggttcttgt acctcggccg cgaccacgct 540
aaggggcg 547

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<210> 20
<211> 395
<212> DNA
<213> Homo sapiens

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<220>
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<222> 71
<223> n = A,T,C or G

```

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<400> 20
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agtaattcag ntacaggggtg accaacgcaa gaacatatgc cagttcctcg tagagattgg 120

```

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<210> 21
<211> 283
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 39, 72, 111, 116, 259
<223> n = A,T,C or G
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<400>	21					
aattcgcctt	ttcgagcggc	cgcccgggca	ggtactttna	ggcttgtagg	agggtaaaat	60
agagaccag	tnaaatgtga	ataagcagt	cttgaattat	ttggtccgg	ntgtntcta	120
ttagactatg	gtgagctcag	gtgattgata	ctctgatgc	gagtaatacg	gatgtgttta	180
ggagtgggag	ttctagggga	tttagcgggg	tgatgcctgt	tggggccag	tgccctecta	240
attgggggt	aqggqctang	ctggagtggt	aaaggctca	gaa		283

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<210> 22
<211> 414
<212> DNA
<213> Homo sapiens
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<220>  
<221> misc_feature  
<222> 39, 69, 71  
<223> n = A,T,C or G
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<400>	22						
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acaatgccng	ncaggccacc	tacggtgaaa	agaaagatga	atcctagggc	tcagagcact		120
gcagcagatc	atttcatatt	gcttcctgtg	agtgtggcga	gtcagctaaa	tactttgacg		180
ccggtgggga	tagcgatgat	tatggtagcg	gaggtgaaat	atgctcgtgt	gtctacgtct		240
attcctactg	taaatatatg	gtgtgctcac	acgataaacc	ctaggaagcc	aattgatatc		300
atagctcaga	ccatacctat	gtatccaaat	acctcggccg	cgaccacgct	aagggcgaat		360
tctgcagata	tccatcacac	tggcgggcgg	tcagagcatg	catctagagg	gcc		414

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<210> 23
<211> 622
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 37, 67, 602
<223> n = A,T,C or G
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<400> 23
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<210> 24
<211> 665
<212> DNA
<213> Homo sapiens
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<400>	24						
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ctttatcgnc	aaaatcacgc	caaataataa	cgggacctat	gcctgttttg	tctctaactt	120	
ggctactggc	cgcaataatt	ccatagtcaa	gagcatcaca	gtctctgcat	ctggaacttc	180	
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tctgatatag	cagccctggt	gtagttttct	catttcagga	agactgacag	ttgttttgct	300	
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acagaaaaaga	ctctgaccag	agatcgagac	catcctagcc	aacatcgtga	aacccccatt	420	
ctactaaaaaa	tacaaaaaat	agctggggct	ggtggcgcg	acctgtagtc	ccagttactc	480	
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tcgcaccact	gcactccagt	ctggcaacag	agcaagactc	catctcaaaa	agaaaagaaa	600	
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catca						665	

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<220>
<221> misc_feature
<222> 24, 320
<223> n = A,T,C or G
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<210> 26

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taggaaatgg	caaaaaccta	acctagctgg	acattttata	caagtaagtc	aaagttcaaa	180
ggaatcatcc	tatctttatt	ctcagaaatc	caatggtgaa	tatcacagtt	cttctttaat	240
qqaagcagaa	qattcacagt	ccctgtctcc	caaaatgcct	cagccagggt	cagcacagag	300

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agtggaatat aaaaagctta attgtgttaa tacatggaag acaacngttc tcaggcnacc 360
tagccaca                                         368

```

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<210> 29
<211> 265
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 38, 39, 70, 72
<223> n = A,T,C or G

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<400> 29
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atgttgagan tntccattc cttccagaat tttcagagat gaggtagacc cacctcaatc 120
atcctcagca tcagtttgc aaattgccag gtcfaatgac aagctctcct gccatctcca 180
agcccacttt tcatagtacc gctctgtctt tggctgcagc actttaggca ctattctaag 240
tcctggagta tatcactctt gcttc                                         265

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<210> 30
<211> 195
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 38, 39, 72, 179
<223> n = A,T,C or G

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<400> 30
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aagcctttag gngtgtttct tgaactataa agaaaacaaa ttttggcagt ctttaagtat 120
atatagctta aaatataatt ttttagcattt ggcaccatat gtatgccatt atatttgant 180
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<210> 31
<211> 285
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 228, 255, 268
<223> n = A,T,C or G

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```

<400> 31
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tgcctagaaa tatctttctc ttacctgtta tttatcaatt tttccagta tttttatacg 120
gaaaaaattg tattgaaaac acttagtatg cagttgataa gaggaatttg gtataattat 180
ggtgggtgat tattttttat actgtatgtg ccaaagcttt actactgngg aaagacaact 240
gttttaataa aaganttaca ttccaaanaa aaaaaaaaaa aaaaaa                    285

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```

<210> 32

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<211> 609
 <212> DNA
 <213> Homo sapiens

<400> 32
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 ccagtagact cgggtataatt tctgacagcc aaatgtatcc caatttcact cagtagggct 120
 gccaggagat gggtagggat acaaacaaaa tcatctactt tatcaatctt tttttttttc 180
 atggattttt tccccattg gctttcaaag caagtggat aaacagcggt actggcagat 240
 attggtcata aataacatct tcccaaagcc caacagtcaa aaaacaaaca ccaaataataa 300
 gcagattagg cagatttctt aaatattcag ttaaggctat ggtgtgcttg gttttgacca 360
 gagcaattct atggcttctt tttatttttc tccctggata aaactatgct tacttgatcc 420
 atgcaatttc agttgtttaca gctttaactt ataagatcaa aggaattaaa aagttgtcag 480
 aatagatttt caaataatga caaaaactga cataaagtct acacagaact gacataaagt 540
 ctacacagtc ctcagggata tggataaaaac aaatgaagtt tcatgactgg aagggggctc 600
 ctttctaag 609

<210> 33
 <211> 543
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 38, 451, 509, 537
 <223> n = A,T,C or G

<400> 33
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 aaaactgcta ttgttgctca agtctgaatc gctgtgaata tagtgaagag tggagtccat 120
 atttcaaca gcatcgctga ttaaaggcac agaattctt tgaatttatt tacaatttgg 180
 tagctcattt atatccagtt catcttgcaa atcacttctc ttttctatac tgatggctctc 240
 ttcattgtga tccaggctgg aagcacgtag tgcagcggac agcacttcca cttgtgcttt 300
 aacatctgga tcatcaatgt ggggctctag attttctatc atttcttcca gttcctttct 360
 ggtggccatg gtgatgtttg gagaactggg cacagggccc tcagattctt cctctggtcc 420
 ctctgggctg ggttttcccc cagagttctg ntcaagctct atgtctagat ctatttcagg 480
 aagaggagtc ctccagaaat ggaaggagnt atacaattcc tgatctaaga gagctgnatc 540
 ttg 543

<210> 34
 <211> 259
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 234, 255
 <223> n = A,T,C or G

<400> 34
 aattcgccct tagcgtgggc gcggccgagg tacctactgt gtgcttttcta ctatcagcca 60
 tcaaaaagaa tgataaaagt ccacagcata ggaatctgtt catctgagtg ttctgccaaa 120
 aaatacagta attacaagta gtgtcaccat cagtgacaag ggcaggggaag actatttttc 180
 ctttttttcc caacttattc aaataacttaa acctcttcta tttcgagttc aaangaggta 240

aacatacaac ctcanaggt

259

<210> 35

<211> 346

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 38, 69, 70, 255, 280, 328, 337

<223> n = A,T,C or G

<400> 35

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ccattctgag tcatttggtc ttcttggcct gtcaagacac ccaaaaaagg ccaagctgtt 180
cacccaggga gccatactgg cacattcctt ctgcgcttga taatatctgt caattccctt 240
cagccaggga ccagncactt taggctatta gcctgcaggn catttagaag atttaagtaa 300
atatctgatt tgaggaacct gggataanag tccttttncca taagag 346

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<210> 36

<211> 834

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 698, 765, 769, 776, 792, 817

<223> n = A,T,C or G

<400> 36

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gtaatcttct tcccctcatc cccccaggcc tgagggttga tattctcaaa taatgtggta 180
ggctcattcc tggctagctt ttgctggca agaataatct ctccctcaaa gtgttcagg 240
taactcttct aaaacatctc atattagtct acaccagata tagtcttct tctagatata 300
ttagagttga ccaagtcttt ccctaaaagg ataattatat aaaagagtag gaacaaagg 360
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aaaagcaaag tagctcctct agcaaatatg cttcagaatt aagtctgatg ctcagaacac 660
tcagatcaaa ttatccttta ttaaaatgaa gcaccagnca agtataggaa aaaaaataaa 720
gggaacttca tctctcacat acaaaacgta cctggcccgg gcggnccgnt cgaaangggc 780
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<210> 37

<211> 613

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 38, 39, 550, 556, 576

<223> n = A,T,C or G

<400> 37

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ccccgcccc cccggcctga taaagcgcgc cgactgggct acaaggccaa gcaagggttac 120
gttatatata ggattcgtgt tcgccgtggg ggccgaaaac gccagttcc taagggtgca 180
acttacggca agcctgtcca tcatgggtgt aaccagctaa agtttgctcg aagccttcag 240
tccgttgacg aggagcgagc tggacgccac tgtggggctc tgagagtcct gaattcttac 300
tgggttggtg aagattccac atacaaatth tttgagggtta tcctcattga tccattccat 360
aaagctatca gaagaaatcc tgacacccag tggatcacca aaccagtcca caagcacagg 420
gagatgcgtg ggctgacatc tgcaggccga aagagccgtg gccttggaag gggccacaag 480
ttccaccaca ctattgggtg ctctcgccgg gcagcttggtg agaaggcgca atactctcca 540
gtccaccagn taccgntaat ataagtaaaa gtttgnaaaa attcatactt aataaacaat 600
ttaggacagg tca                                     613
```

<210> 38

<211> 622

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 41, 70

<223> n = A,T,C or G

<400> 38

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aattcgccct tagcgtgggc gcggccgagg tatgcccttt ncctaacact cacaacaaaa 60
ctaactaatn ctaacatctc agacgctcag gaaatagaaa ccgtctgaac tatcctgccc 120
gccatcatcc tagtcctcat cgcctcccca tccctacgca tcctttacat aacagacgag 180
gtcaacgatc cctcccttac catcaaatca attggccacc aatggtactg aacctacgag 240
tacaccgact acggcgggact aatcttcaac tctacatac ttccccatt attcctagaa 300
ccaggcgacc tgcgactcct tgacgttgac aatcgagtag tactcccgat tgaagcccc 360
attcgtataa taattacatc acaagacgtc ttgcactcat gagctgtccc cacattaggc 420
ttaaaaacag atgcaattcc cggacgtcta aacaaacca ctttcaccgc tacacgaccg 480
gggtataact acggtcaatg ctctgaaatc tgtggagcaa accacagttt catgcccac 540
gtcctagaat taattccctt aaaaatcttt gaaatagggc ccgtatttac cctatagcac 600
cccctctacc cctcttagag cc                                     622
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<210> 39

<211> 568

<212> DNA

<213> Homo sapiens

<400> 39

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aattcgccct tagcgtgggc gcggccgagg tggagttctt gcaagtcggc caggatgtct 60
caggctgagt ttgagaaaagc tgcagaggag gttaggcacc ttaagaccaa gccatcggat 120
gaggagatgc tgttcatcta tggccactac aaacaagcaa ctgtgggcga cataaatata 180
gaacggcccc ggatgttgga cttcacgggc aaggccaagt gggatgcctg gaatgagctg 240
aaagggactt ccaaggaaga tgccatgaaa gcttacatca acaaagtaga agagctaaag 300
aaaaaatatc ggatatgaga gactggattt ggttactgtg ccatgtgttt atcctaaact 360
gagacaatgc cttgtttttt tctaataccg ttgatgggtg gaattcggga aaataaccag 420
ttaaaccagc tactcaaggc tgcctaccat acggctctaa cagattaggg gctaaaacga 480
ttactgactt tccttgagta gtttttatct gaaatcaatt aaaagtgtat ttgttacttt 540
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa                                     568
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<210> 40
 <211> 83
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 42, 65
 <223> n = A,T,C or G

<400> 40
 aattcgccct tagcgtgggc gcggccgagg tgttcgtgac angatcaagc gtgctttcct 60
 tatcnagggg gggaaaatcg ttg 83

<210> 41
 <211> 774
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 679, 728, 730
 <223> n = A,T,C or G

<400> 41
 aattcgccct ttcgagcggc cgcccgggca ggtaccattt gcctcccggg ctcaagcgat 60
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 atttttgtaa ttttagtaga gacagggttt caccatgttg ccaggttg tttcgaactc 180
 ctgaccttag gtgatccacc cgctcggcc tcccaaagtg ctgggattac aggccttgagc 240
 cccgcgccc agccatcaaa atgcctttta tttctgcata tgttgaatac tttttacaat 300
 ttaaaaaaat gatctgtttt gaaggcaaaa ttgcaaactc tgaaattaag aaggcaaaaa 360
 tgtaaaggag tcaaaactat aaatcaagta tttgggaagt gaagactgga agctaatttg 420
 cattaaattc acaaaacttt atactctttc tgtatataca ttttttttct ttaaaaaaca 480
 actatggatc agaatagcca catttagaac actttttggt atcagtcaat attttttagat 540
 agttagaacc tggctcctaag cctaaaagtg ggcttgattc tgcagtaaat cttttacaac 600
 tgcctcgaca cacataaacc tttttaaaaa tagaactcc ccgaagtctt ttgttcgcat 660
 ggcacacact gatgcttana tgttccagta atctaatatg gcccagtaa gtcttgatga 720
 cccaaagntn cttttttttc catctttaga aaactacatg gggaaccaa caga 774

<210> 42
 <211> 264
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 38, 68, 70, 90, 95, 113, 124, 125, 126, 136, 140, 144, 147,
 149, 154, 168, 178, 187, 191, 192, 209, 212, 238, 258
 <223> n = A,T,C or G

<400> 42
 aattcgccct ttcgagcggc cgcccgggca ggtacaanta tttgtaacac tggatgactc 60
 ctgttgtn gn tattttctat cttctctggn gcaangtatt ctccttgggc cancttgaaa 120

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atgnnnntttt tacggncgan gatnttnana gttncattcg ggagccancg accaatgnct 180
cctgtgngaa nncagccatc actgtccang gnttcctgtg tcttctcagg gtccttcngg 240
tatcctttga acacggtnng cctc 264

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<210> 43
<211> 432
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 38, 40, 70, 337, 340, 369, 388
<223> n = A,T,C or G

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<400> 43
aattcgccct ttcgagcggc cgcccgggca ggtacagtn gataatacta cctattttta 60
actaaatatn gatgaacaaa cagcggttaa aaccagaatc agggcttata aatagtgcag 120
aaaatgcaaa cgccaaaaaa acgatgcctc ctatgattgt cacagttctg acagagattt 180
tctgtgctat cattcttcct ccaattactg ccaatcccgt gcacaggcag tgcccacag 240
ttccacccac ggctacacca taggggtcct ggaagcaagc gtcacagcat taattcaaaa 300
ccaagggtgac aactgctgct tgagaaccat aacaatncan aagcactaaa aatggtggcc 360
aacaattana aagcataata gttataanaa tgcaggcgtg taataaattt atgaaaggcg 420
tcatggcctg ct 432

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<210> 44
<211> 149
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 70, 72, 126, 144
<223> n = A,T,C or G

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<400> 44
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tgaagttttn tntattagca gaaggagctt tgcggctgag actatggggg tttctagata 120
tagaancatg tcagcttcaa atanggata 149

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<210> 45
<211> 597
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 37, 70, 107, 431, 485, 518, 525, 531, 549, 575
<223> n = A,T,C or G

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<400> 45
aattcgccct ttcgagcggc cgcccgggca ggtacnnttc cattccattc cataccattc 60
cattccaggn cattctattc cgttccattc cattcctttc cgttccnnttc cgttccattc 120
cattccattc cattctattc gattaattcc attccattcc attccattcc attctattcc 180
attccattgc aatcgagttg aatccattgc atttcattcc attccattcc attccattcc 240

```



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attccggaag tttccattcc attgcattcc attccattcg attccattcg attgcactcg 300
ggttgattcc attccattgc attccattcc attccattcc attccattcc attacattcc 360
attccattac attcggattg attctattca attcccttac actccattac attccattcc 420
attcgggtag ntccattcc attccattcc attcctctcc attccattgc actcggggtg 480
atgtncattc cattgcattc cattccattc cattgcgntc cattingcatt ncattacatt 540
cggattgant ctattcaact cccttactct ccatnacatt ccattccatt cgggggtg 597

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<210> 46
<211> 412
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 38, 56, 70, 308, 362, 381, 387
<223> n = A,T,C or G

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<400> 46
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taaatgggtg cagacatgtc caaggaatat tgcggggatt tgatcccttt atgaaccttg 180
tgatagatga atgtgtggag atggcgacta gtggacaaca gaacaatatt ggaatgggtg 240
taatacgagg aaatagtatc atcatgttag aagccttgga acgagtataa ataatggctg 300
ttcagcanag aaacccatgt cctctctcca tagggcctgt ttactatga tgtaaaaatt 360
angtcatgta cctcggcggc naccacncta agggcgaatt ctgcagatat cc 412

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<210> 47
<211> 690
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 670
<223> n = A,T,C or G

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<400> 47
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gacaggagag tctgttgaa cttgggagggc ggaggttgca gtgagccagg atcgtgccat 120
tgactccag cctgggcaac aagagcgaaa ctctgtctg aaaaaataaa gtcatccca 180
actttcaagt ctacaaaaac ataatacaaa tctaataaca tagttgtaaa tgagagcaac 240
aataaaaagt agacatgggc tgggtgcagt ggctcactcc tgtagtccca ggactttggg 300
aggccgaggt gggaagatcc cttgagccca ggagttcgag acaagcctgg gtaacacggg 360
gagacccgtc tttagtaaat aaaaaataat ttattaataa aactaaaaat ttaataataa 420
aaagtggaca ttgtttttta aaatgtgtat agtatgcatt ttaaagatag tgtcactgct 480
gtggaaaacc tgaacagaca gtatgatcca gaatgtcagg tgtggagttg ggcggacaag 540
agcctgctga tgaggacaac ctaaaagagc actggatttg gaatcagaag acctaccttt 600
gattcctggc tttcccttaa tggccatgtg atggtattaa gtcagcctct aaagcttttag 660
tttcctgtcn gtcaaatgtt gacatgatac 690

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<210> 48
<211> 697
<212> DNA
<213> Homo sapiens

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<220>
 <221> misc_feature
 <222> 475, 564, 618, 633, 656, 689
 <223> n = A,T,C or G

<400> 48
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 cacaataata atcttaatct ttaagaatta attataattt aatattataa ttcataatct 240
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 aatcttaatc ttttaagaatt aataataatc cttaatcgcg ataataatcg caaggaggag 420
 aagtaagtcc ctctctcttc tgtatgaact tttctccac atgctgctgt atggnttagt 480
 gagagtgaag ttctaaagaa catcaatatg attggtggga taatccaaag acattttttc 540
 agaatcaaag ggcattgcga aggnntgggt cttgcataatg tatttactgg gtccacagcc 600
 aaaataaagg tgaccacnta tacataggaa agntgaattt ggaccctgcc cgggcngggc 660
 cgctcgaaag ggcgaaattc tgcagatanc ccatcac 697

<210> 49
 <211> 341
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 69, 306, 312, 318, 327
 <223> n = A,T,C or G

<400> 49
 aattcgccct tgagcggccg cccgggcagg tacctgattg tgcagggcca gctcttccga 60
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 gacacctgca agacgactcc aacccaacaa caaccagatg tgctccagcc cagccgggct 240
 tcagttccat atttgccatg tgtctgtcca gatgtgggtg tgagcggggg tggggctgca 300
 cccagngcat tnggtcanc gccagancta aaaacgcgac g 341

<210> 50
 <211> 617
 <212> DNA
 <213> Homo sapiens

<400> 50
 aattcgccct tgagcggccg cccgggcagg taccattct gttttcccc agcaacgccc 60
 ctccaaacct ccagcctccc tgtctccagc tgccctgggc cggaagggtc ttggttccct 120
 ctctgggtct gattttctca ctgaactcca ccgaccaact gccctaagcc cccagggcct 180
 ccagggccca ggttcgagac ccaaaccccc aaattccaaa acttctcttg aaaagttcag 240
 ggaccgtcca ggggagatgg ggaggagata tggagtgaat cacctgctcc agaagatgcc 300
 agcttctctc tccagggtgc ttagttggct ttgcccaccc ctactcccc agggagctct 360
 ggagacagcc tcttcacacc cctgtccccc ccacacagct gccctagctg accccgagaa 420
 gtgctcttgg ctgacccttc tgggtgtgtg tgaggggctt tctcttcccc ttctgtttc 480
 agaccccccc atttcccgca catggtgtgg ggggctgggg gaggtccaag cagagtgttt 540
 tattattatc gctttatgtt tttggttatt ggtttttttg tatagaccaa agcaaagaaa 600

ataaaaataa cacagag

617

<210> 51
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 36, 269, 298, 311, 316, 318
<223> n = A,T,C or G

<400> 51
accantat tttgaggatt ttgcacagtg taaaangaca taatcataga ttgctatggt 60
ttaggctgta tatacagtg aaactatggg ttttaaagt ttggggaaat tcctatggaa 120
aaaagagaga catgtagaag aacctctaac aagggttaat tgcatgccca aggtcttttg 180
aaatttcagt gtgtaaattt ccttttagct tatacaaaaa taaaataatt taaaagaaaa 240
aaaaaaaaa aaaaaaaaaa aaaaaaaang aaaaaaaaaa aaaaaaaaaa aaaaaaangc 300
ccctcggccg naaccncnct aagggc 326

<210> 52
<211> 123
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 61, 71, 93, 111
<223> n = A,T,C or G

<400> 52
aattcgccct ttgagcggcc gcccgggcag gtactcatac ttgatcgatt aatgaagtgg 60
ntattttggg ntttgcttga tattatcaac tcnctggcaa caacactatt natgctcacc 120
gta 123

<210> 53
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 271, 293, 305
<223> n = A,T,C or G

<400> 53
aattcgccct taggcgtggt cgcgccgag gtacaccaag cacctat ttaacttag 60
cttcccatgg agagataatg gcttgctgac attttatgta tccataacat acatacaagg 120
ctcggctctt tcaatgggat aacagttcac aactcttcga tttgaattgt aatgaatctg 180
gtgacaagga tttttctcta atggattcca aagttagcca gaacttttaa tgtcaagatg 240
aaaaagggtg taagggtgta tttttcttc nattccttta ccacaggagg ctnactccac 300
aattngctca tgttctcat tcagaa 326

<210> 54

<211> 557
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 70, 498
 <223> n = A,T,C or G

<400> 54
 aattcgccct tagcgtgggt cgcggccgag gtactacgtt gtagccact tccactatgt 60
 cctatcaatn ggagctgtat ttgccatcat aggaggcttc attcactgat tccccctatt 120
 ctccaggctac accctagacc aaacctacgc caaaatccat ttcactatca tattcatcgg 180
 cgtaaatcta actttcttcc cacaacactt tctcggccta tccggaatgc cccgacgtta 240
 ctccggactac cccgatgcat acaccacatg aaacatccta tcactctgtag gctcattcat 300
 ttctctaaca gcagtaatat taataatttt catgatttga gaagccttcg cttcgaagcg 360
 aaaagtccta atagtagaag aaccctccat aaacctggag tgactatatg gatgcccccc 420
 accctaccac acattcgaag aaccctgata cataaaatct agacaaaaaa ggaagggaatc 480
 gaacccccca aagctggntt caagccaacc ccatgggccc ccatgacttt tttcaaaaaa 540
 aaaaaaaaaa aaaaaaa 557

<210> 55
 <211> 418
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 39, 305, 325, 343
 <223> n = A,T,C or G

<400> 55
 aattcgccct ttcgagcggc cgcccgggag gtacagaant cagaggaaaa aagaaattaa 60
 atttttagctt tctggagagc agcccctctc tggcaccatc aaacacttct ttgtttccct 120
 tcaacttggga actcttcaaa catcaggggt tgtgagggtt tggccattct tttatcttgg 180
 gtccatgtga gtgacagaaa tgggtgcggc tgggaaagat ctccctcctt tacattttct 240
 cttctccctc ctccctccta ttctaaaact gtgcctccaa cagaggggca ggggctcttg 300
 taganagatc cctggcccag gacangagat gccaaatcta atntatctca ctgagggcct 360
 ttgagaaaaa cgcttcaggg ccaggctcag tggctcatgc ctatataatc ccagtacc 418

<210> 56
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 38, 283, 304, 337, 348
 <223> n = A,T,C or G

<400> 56
 aattcgccct tgccgcccgg gcaggtagac agctgtcntg gaaagtcttg atggccacag 60
 tgaaaaaggg catgggtgga gagaagcaaa gtaggaagga tcatttgaag cacaacaaa 120
 tggggaaact gaacagacaa tctcagtatc accacatctg cttcaaaaat agcacaccaa 180

```
ctcccttcca aagtgcacg ttacactgca ccatcgtgga agaaatggaa gagcaggatg 240
gatttggtg gctggagtca catcttggg aagctggcca ggntggcaat gccacaggcg 300
ttgntcttat ttogagccat gaggatatat cctttgnttc cccagctntc tccccagctg 360
```

```
<210> 57
<211> 428
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 73, 82, 105, 147, 168, 191, 196, 204, 215, 218, 225, 227,
236, 253, 260, 266, 269, 280, 287, 309, 317, 321, 339, 349,
352, 355, 356, 363, 374, 391, 403
<223> n = A,T,C or G
```

```
<400> 57
aattcgccct tagcggcccg cccgggcagg tactcccttt tttgagaaac tttcttgaag 60
aacaccatag gngctggtt gnagttgggg ctcaccactc ggacnaggta actcgttaat 120
ccacggtaac tcttaatggt gccagngtg aactcgccgg gctggcanc tgaacaaaa 180
gtcctgatcc ngtagncaca cttntttttt ctaancanga cggangngac attgcngctc 240
ttgttttctt tcnngtcatt gatgnggna tacatctttt gcgggtnttt gccttttctg 300
agaattgcnt tccctgncag ncctaccaca taccacttnc cctggaatng gntgnnctga 360
aantttctgt gcanagggac cttgctcaca ngcaggggct ggnatcaggt ctgacgtgga 420
gtcctggg 428
```

```
<210> 58
<211> 478
<212> DNA
<213> Homo sapiens
```

```
<400> 58
aattcgccct taaggcgtgg tcgcggtctg aggtacccca aatgggttgt gccattttca 60
cataaaaaatt ggaatgataa tgaacaagt aaagtgaat cagtttccct cctttgttca 120
ataaacatgg ttagagcacc tgtgtgcaag atagtgggac aggtgctgag gggaaaggta 180
aagctgttta agctgtggcc ctgagctgaa ggagcaatct agcagtgcc ttaggccttg 240
cacactgcag agcacagtgt cccaggggcc aggtggaggg aaggatcact tccggctgca 300
gcatcagggg aggcactctg cagtctcccc tccaggttct cagcgtgcct ctatgcctgt 360
gtgactgctc agcctgcccc attccaggca cttgctcatt ttccttatct ttctctgtag 420
catgagaaat ggaagtgtga gaggatagga tctacctca caggtacctg cccgggag 478
```

```
<210> 59
<211> 453
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 38, 69, 72, 187, 366, 421, 448
<223> n = A,T,C or G
```

```
<400> 59
aattcgccct tcgagcggcg cccgggcagg tacagtgnta gctccccctg ggcaatacaa 60
```

```

tacaagaana gnggggttttg tcaaattgga acaaggaaac agaaccacag aaataaatac 120
attggttaac atcagattag ttcaggttac ttttttgtaa aagttaaagt agaggggact 180
tactgtntta tgctaactca agtagactgg aatctcctgt gttctttttt ttttaaattg 240
gttttaattt tttttaattg gatctatctt cttccttaac atttcagttg gagtatgtag 300
catttagcac cactggctca atgcgctcac ctagggtgaga gtgtgaccaa atcttaaagc 360
attagngcta ttatcagtta ccaccatttg gggcttttat ccttcatggg gtatgatggg 420
ntcctgagga cacatttctc tgagttcngt aat 453

```

```

<210> 60
<211> 407
<212> DNA
<213> Homo sapiens

```

```

<400> 60
aattcgccct tcgaccacca agcgaaacat cgcacgcagc gagcacgtac tcggatggaa 60
gccggtcttg tcgatcagga tgatctggac gaagagcatc aggggctcgc gccagccgaa 120
ctgttcgcca ggctcaaggc gcgcacgccc gacggcgagg atctcgtcgt gaccatggc 180
gatgcctgct tgccgaatat catggtggaa aatggccgct tttctggatt catcgactgt 240
ggccggctgt gtgtggcgga ccgctatcag gacatagcgt tggctaccgc tgatattgct 300
gaagagcttg gcggcgaaatg ggctgaccgc ttctcgtgc tttacgggat cgccgctccc 360
gattcgacgc gcacgcgctt ctatgcgctt cttgacgagt tcttctg 407

```

```

<210> 61
<211> 486
<212> DNA
<213> Homo sapiens

```

```

<400> 61
aattcgccct tggccgcccc ggcaggtggt cggaggtggt gggagctcc tgtttgacgg 60
tattaagaaa catcgagtca ctttgccctg acaggaggaa ccctgggaca tccggaacct 120
gtcatctggt atcaagaaga atttgctaaa agagcggcca gagttgttca tccagggaga 180
cagcgtgcgg ccaggaattc tgggtgctgat taacgatgcc gactgggagc tactgggtga 240
gctggactac cagcttcagg accaggacag cgtcctcttc atctccactc tgcacggcgg 300
ctgagggccc ttctctgggc ctgggcaccc tttagagggga gaacgaagca atcagacatc 360
cccttggggc ctgcttccag gtctccctgt ccccttgcc tgccttcttc cctgctctgt 420
ccctaagct ccctccaggc agggaaaaga ggccaggtgc taaaaatgag cttttctcaa 480
gcaccg 486

```

```

<210> 62
<211> 227
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 4, 37
<223> n = A,T,C or G

```

```

<400> 62
tcancacat gagggccaac acacacagat cagatgntca aatttcagat cttaccatca 60
tccaacttaa actgtttctc cctcccagtt gtcaggagga agaagacctg gctttagcac 120
aagcactgtc agccagttag gcagaatacc agcggcagca ggtatgaggg tgggctgaag 180
atatatgctg cagtggaagg gaggaagaag tcagggatgg ggggttct 227

```

<210> 63
 <211> 166
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 1, 43, 62, 64, 70, 73, 91, 92, 94, 101, 105, 120, 143
 <223> n = A,T,C or G

<400> 63
 ntaactaaag gagctgggtg catctgtctg tgcggatgga gantttctttt atctgacacc 60
 angnctccan ccnactgaa acaaggcatt nntntacaga nctcnactaa aacccctttn 120
 cattaggcta ctccacttcc ttncctcat acctacccca cctcgg 166

<210> 64
 <211> 204
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 5, 6, 106, 116, 147, 178
 <223> n = A,T,C or G

<400> 64
 acccnngggg gcttgtagca cattttaaaa tcacagttat aataatgtct ctcagctaaa 60
 gacactacca catccagatt ctcttgcaag ccatctacag attcanggat gaccgnttca 120
 ctaggcttat tatatttttt caatttnttc tcaaatacaa aacgcaccaa tttctgtntct 180
 tcattacaca gcttggttaag ggg 204

<210> 65
 <211> 425
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 25, 39, 65, 415, 417
 <223> n = A,T,C or G

<400> 65
 ggttcgcggg cgaggaacat agttntggaa attatttgng gtaaggaaat atgggttact 60
 ccagntgcat ttctcagaca ataaagtggg gcatccatgc tacctcctac ttgtgcaaca 120
 aagatgctat ttacccttta catTTTTgta tcataataga ttttaaaaat ctaatgttct 180
 ttattgcaag acattctttt gttaacagggt ttgtttcttt ttaatgtttt acctaaaatt 240
 tgacatgctt acaggacagg tttgcctctt actttattta acattgtaga aatgtaatta 300
 ataaacaatg ctactacac agtttagaat agacgctctc atttatatta tcttccaaat 360
 ttgatcagtt agcaaaactt aatacaccaa ttaaaatatt tctacatatg agaangntca 420
 cactc 425

<210> 66
 <211> 132
 <212> DNA

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<220>

<221> misc_feature
 <222> 38, 229, 242
 <223> n = A,T,C or G

<400> 69
 aattcgccct tagcgtggtc gcggccgagg taccaaanca agaaccatat aaatgatgcc 60
 tagggacaag aaagaggaac aattctatag cgcacaataa aggaaaccta agaatgggag 120
 ttacaaatag taaagaagct tttttttttt ttttaattta aagttttttt atgtaagttt 180
 tcccacatga tggggccttg ttttgcaggt tgatgaacaa ctacaccng aaaactacta 240
 tngttaaa 248

<210> 70
 <211> 262
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 256
 <223> n = A,T,C or G

<400> 70
 aattcgccct tagcgtggtc gcggccgagg tacctcccca cccaggcctc gctccttctc 60
 cacggtttgc aggcccaca tggcagctgt ggtgcggggt tccagccagc gggcggtgac 120
 agtggccagc gtaaggctca ggaacagcag gtaaagctgg ctggcctccc agaatgtgag 180
 ctgagcccaa gcatgctgtg aagccaagat gcagaggttg atgaaggcac agcccatgga 240
 gatgtggaag cagaanggga aa 262

<210> 71
 <211> 242
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 38, 40, 88, 93, 231, 236
 <223> n = A,T,C or G

<400> 71
 aattcgccct tagcgtggtc gcggccgagg tattcctnan aaccgtggcc ttatgtagca 60
 tcatggtgaa aactccgtat cgcccttngc ttntgacttc atatcttact ttccaaggcc 120
 gaattctttc attgtcttct cttcaccaga tccccaacat tatcaattct ggctcctaga 180
 agtgtgctat ggcaaaactaa tttgcaagca ttaaggggtg aagtggaatc ncaatnaaca 240
 ga 242

<210> 72
 <211> 139
 <212> DNA
 <213> Homo sapiens

<400> 72
 aattcgccct tagcgtggtc gcggccgagg taaa'aaaaaa aaccagccaa aaccacaact 60
 ttttactgaa gtgtaatgta aatgctgtaa aaggcagtga aaggcacaag ggaggtggag 120
 gggtaggaag ggtggaagc 139

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<210> 73
 <211> 845
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 48, 71, 121, 162, 167, 169, 182, 203, 208, 265, 282, 324,
 349, 380, 457, 525, 538, 543, 572, 601, 602, 625, 626, 628,
 629, 651, 663, 674, 678, 679, 687, 699, 708, 709, 718, 720,
 721, 722, 731, 746, 755, 756, 765, 770, 790, 803, 826
 <223> n = A,T,C or G

<400> 73
 tttttttttt tttttttttt tttgagttta aatgcatttt ttttttanac aacctacatg 60
 acatgttttt nttaaaaaaca atgcctccac tccaaataaa tcacagtcaa aataaatgaa 120
 nagctcaaga tgacatcagt cccatttgtc ttaagtcctg gngttgngng gatgacaagc 180
 anaagccagt tatgatgaca ggngatanat ccaaaataat tgccacattt gttaacattt 240
 ttccatttct aaaccatcct taaanaaaat catatatggg gncacacccat cctcacggga 300
 gtccaataga gcaaccatgc catntggatt catgttttca ccaataaana actggtagtt 360
 tttgaaatta gcaaggatgn gcttgatttg ttctgcagcc cctgtcataa aaggttttac 420
 tctttctggg ctctgggtct caagtttccc ttgatngat ttcattgtaat ctttgatgga 480
 ccttcttgta ggcttctttt gtgaaacttg tttcctgcag ggganggttc atgacaanta 540
 tcnaccccag gggattactg gggctttcgg tnccttcgcc ccctcggggg gccctttcaa 600
 nngggggggc catttttccc ccccnannng gagggccgga aggtccattc naaatggggt 660
 ttnacccttt tttnggggnc ccttacnttg ggacccaant tttttttnnc cttttgcnan 720
 nncttttcga ngggggaaac aaaaancccc cgggnggccg cggnggaaan accttcccc 780
 ggggaaatcn tttgtgaaaa aanggccggg ggaaaaaaa aaattntttt atttctcggg 840
 ggctt 845

<210> 74
 <211> 311
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 33, 55, 61, 76, 107, 122, 131, 139, 152, 174, 176, 180, 190,
 191, 195, 214, 216, 230, 231, 240, 259, 290, 311
 <223> n = A,T,C or G

<400> 74
 tttttttttt tttttttttt tttttttttt ttngcttata aacatccttt attgnacata 60
 nacaggggat actganaatg atcaagtaaa tggaattttg aacaggnaaa gaggaacaa 120
 anaattaagg natccctgng gaatagtgc aanaaggagg gccccacca tagngtatn 180
 tacaataggn nctcngggga aaggaccca agngncaaa ccacaaatgn ntgaccaccn 240
 caattttatg atcaaactnt acctctagca aggggtttca acaatcaagn tttatttaaa 300
 tcattcgctc n 311

<210> 75
 <211> 551
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 533, 540
 <223> n = A,T,C or G

<400> 75
 actgaaacct gacctctgac cccagaccac tggcccttcc cccgccctgt ggtgacttca 60
 taaaggttac tagcttctcc cctggccttg agaccacac gatggccctg ctggctctgg 120
 ccagtgccgt cccgtctgcc ctgctggccc tggctgtctt cagggtgccc gcctgggcct 180
 gtctcctctg cttcacaacc tactctgagc gcctccgcat ctgccagatg tttgttgga 240
 tgcgagagccc caagcttgaa gagtgtgagg aggccttcac ggccgccttc cagggcctct 300
 ctgacaccga aatcagttag gagaccatcc acatttcac agtgtcctgg ggaaggtgca 360
 gagggaggggc aggagaggcc cagaggggtca ggctgaggga cagacagaga gaaacagtca 420
 gaggagaaaag gctcaaagac catgagaaca acagagactt agggacagga gagacacaga 480
 caggggaaga cagcagggca aagactcaga gaggggagga tggagagtca ganaggggan 540
 gatggagact c 551

<210> 76
 <211> 717
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 54, 56, 400, 439, 474, 526, 565, 607, 608, 616, 655, 659,
 694, 717
 <223> n = A,T,C or G

<400> 76
 gacacctgtg gctcttattt cctaggtggc ccgaggcagc cgggatgaca gctntnccca 60
 ggaatcctgc tgcctgctga gaaacatggt cagcaagtcc cgctggaagc tcctggccat 120
 gttggctctg gtcctggctg tcatgggtgt gtattccatc tcccgggaag acaggtacat 180
 cgagcttttt tattttccca tcccagagaa gaaggagccg tgcctccagg gtgaggcaga 240
 gagcaaggcc tctaagctct ttggcaacta ctcccgggat cagcccatct tcctgcggct 300
 tgaggattat ttctgggtca agacgccatc tgcttacgag ctgccctatg ggaccaaggg 360
 gagtgaggat ctgctcctcc ggggtgctagc catcaccagn tcctccatcc ccaagaacat 420
 ccagagcctc aggtgccgnc gctgtgtggt cgtggggaac ggcaccggct tgcngaacaa 480
 gctcactggg agatgccatc aacaagtacc gatgtgggtc attcanattg aacaatgccc 540
 cagtggctgg ctatgagggt gacgnngggc tccaagaacc accatgcgtt tcttctaccc 600
 tgaatcnnc cacttncacc ccaaagtagg aaaacaaccc cagacacact cctcntcnt 660
 ggtaggcttg tcaagggaat gggactttcc actnngggatt ggagaccat ccctgan 717

<210> 77
 <211> 874
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 579, 588, 604, 611, 613, 623, 628, 630, 631, 655, 677, 681,
 704, 735, 736, 738, 764, 767, 774, 782, 784, 814, 815, 837,
 848
 <223> n = A,T,C or G

```

<400> 77
tgctgggaga cggcgggata tctttcgcca tggctgccgg gccgatctcc gagcgggaatc 60
aggatgccac tgtgtacgtg gggggcctgg atgagaaggt tagtgaaccg ctgctgtggg 120
aactgtttct ccaggctgga ccagtagtca acaccacat gccaaaggat agagtcaactg 180
gccagcacca aggctatggc tttgtggaat tcttgagtga ggaagatgct gactatgcc 240
ttaagatcat gaacatgata aaactctatg ggaagccaat acgggtgaac aaagcatcag 300
ctcacacaaa aaacctggat gtaggggcca acattttcat tgggaacctg gacctgaga 360
ttgatgagaa gttgctttat gatactttca gcgcctttgg ggtcatctta caaaccccca 420
aaattatgag ggacctgac acaggcaact ccaaaggtta tgcctttatt aattttgctt 480
catttgatgc ttcgatgca gcaattgaag ccatgaatgg gcagtacctc tgtaaccgct 540
ctatcacctg atcttatgcc cttcaagaaa gggactccna ggggtgangc gccattggct 600
cacnagccga nnaacttctt ggnagctnan naaccgctc tcccaggctg atggnccctc 660
ttcagcttgt ttgcagnggc nctcctcca ccttttgct ccnaccgtg tggatcatc 720
attgggggtc tgggnntnct cccccaggca tgctctctcc tggntnttc cccncccccc 780
angnccccct ctgggagccc tcccacctgg gganncccc aggcattggc ccccnccct 840
ttccctcngg gggctgcagg acatggggccc ccaa
874

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<210> 78
<211> 887
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 661, 704, 706, 725, 732, 733, 764, 767, 806, 824, 859, 874
<223> n = A,T,C or G

```

```

<400> 78
cggaaggaga cgtggcgggc gttggggcgg tgatacccg gccgtttata gtcccgccgc 60
ctcctcctcc acctcctcct cctcctcctc tctcctgga gcagaggagg ttgtggcggt 120
ggctggagaa agcggcgggc gaggatggag gaaggaggcg gcggcgtagc gactctggtc 180
ccgggcgggc cgggtgttact ggtcctctgc ggcctcctgg aggcgtccgg cggcgccga 240
gcccttcctc aactcagcga tgacatccct ttccgagtca actggcccgg caccgagttc 300
tctctgcccc caactggagt tttatataaa gaagataatt atgtcatcat gacaactgca 360
cataaagaaa aatataaatg catacttccc cttgtgacaa gtggggatga ggaagaagaa 420
aaggattata aaggccctaa tccaagagag cttttggagc cactatttaa acaaagcagt 480
tgctcctaca gaattgagtc ttattggact tacgaagtat gtcattgaaa acacattcgg 540
cagtaccatg aagagaaaga aactggtcag aaaataaata ttcacgagta ctaccttggg 600
gaatatgttg gccagaacc ttctatttga aaaagaacca agaaagcaga agaaaaggaa 660
naatcaaatg aagattcccc acttaaaaaa tatccgaagg gtcnanaatg acaccatta 720
cttantcctt gnnggggaat gggggaaaaa tgggtccac cctntgntag gttttggaaa 780
aacaagaaac cccgggcccc cagaanacaa aagataacct gggnggaatg gtaaccatta 840
atggtccaat tcccttggn aattcttaaa agcnattgga aaaaatt
887

```

```

<210> 79
<211> 640
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 41
<223> n = A,T,C or G

```

```
<210> 80
<211> 982
<212> DNA
<213> Homo sapiens
```

```
<221> misc_feature
<222> 835, 840, 842, 862, 863, 867, 872, 875, 878, 893, 898, 907,
908, 916, 923, 960, 972
<223> n = A,T,C or G
```

<210>	81
<211>	885
<212>	DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 7, 320, 343, 346, 374, 385, 397, 402, 404, 405, 406, 415, 417, 425, 430, 448, 449, 455, 468, 469, 480, 485, 501, 502, 525, 540, 541, 542, 544, 545, 554, 564, 565, 573, 577, 578, 580, 582, 587, 607, 608, 616, 620, 623, 635, 636, 644

<223> n = A,T,C or G

<221> misc_feature

<222> 648, 656, 657, 665, 669, 673, 674, 683, 692, 693, 698, 713, 715, 717, 718, 728, 730, 747, 752, 755, 756, 758, 759, 766, 772, 773, 774, 779, 785, 790, 797, 801, 805, 807, 826, 831, 843, 870

<223> n = A,T,C or G

<400> 81

```

accaatntat actcatcatt aataatcata atggctatag taataaaaact aggaatagcc 60
ccctttcact tctgagtccc agaggttacc caaggcaccc ctctgacatc cggcctgctt 120
cttctcacat gacaaaaact agcccccatc tcaatcatat accaaatctc tccctcacta 180
aacgtaagcc ttctcctcac tctctcaatc ttatccatca tagcaggcag ttgagggtga 240
ttaaaccaaa ccagctacg caaaatctta gcatactcct caattaccca cataggatga 300
ataatagcag gtctaccgtn caaccctaca taccattctt tanttnaact attaataataa 360
tcctaactac tacnggattc ctacnactca ccttaanctc cngnnnccag gaccntncta 420
ctatntcggg acctgaaaca ggttaacnng actancacct ttaattcnnt cccctcctn 480
tcctnagaag gcctgccccg nntaaccggt ttttttgccc aaaanggggc ccattttttt 540
nnannaaatt tccnccaaaa aaanncaaaa tangcnnntn anttatntcc cccccccctt 600
ttcatanngg gccccnccan atnacccecc ttctnnttta aaancccntt taaaannttt 660
ttaancccnt tannccccct tanaattttt annacttncc ccccccttta aantntnnac 720
cccttttnan ttccccccct aattttntaa anccnnanng ggaaanagaa annnaaaang 780
ggcncggtn tttgganaaa ntatnanaaa aaaccccccc ccccnntttt ntttttcccc 840
canaaaattt ttatgtgggg gccccttttn acccacgggg tttaa 885

```

<210> 82

<211> 473

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 10, 76, 458, 467

<223> n = A,T,C or G

<400> 82

```

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gggcggcagg tgtgcncggc atccctgtca cgtggccgaa gagcctgggg cgcgcgacc 120
ctggcagggg gcggggcgca cgcaggccac acccacttca ggctcccacc cggtcgctgg 180
agaggggcca aggcctcttg aaggtccaac ctggaggggt gttcaaaggg gtgttgggca 240
ccctcaaatt aggggaaaat tggggagtag gctctccttc cccagggttg aggttactac 300
aatcataagc ggggagccgg tgccccctgag gaaggagacc ctgagggaga taagatggag 360
gggctcggga ttccggggag ccccaagtc cagcttgaaa cgggtggagtc cgggcaaagt 420
agctctgagg acggcttctg ggccctggccg tgaccanag tgcagtnag aag 473

```

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<210> 83
 <211> 705
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 9, 37, 38, 43, 655, 688, 702
 <223> n = A,T,C or G

<400> 83
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 gtttcctggg gctgccgccc acttcgggtg acccagcgct gaggcggcg cgccgagggc 120
 caagaaataa gaagcggggc tggcgggcggc ttgtcagga gccgctggg ctggagggtg 180
 accagttcct ggaagacgtg cggctacagg agcgcacgag cgggtggctt ttgtcagagg 240
 ccccaaataa aaaactcttc ttctgtggaca ctggctccaa ggaaaaagg ctgacaaaga 300
 agagaaccaa agtccagaag aagtcactgc ttctcaagaa accccttcgg gttgacctca 360
 tcctcgagaa cacatccaaa gtccctgccc ccaaagacgt cctcgcccac caggtcccca 420
 acgccaagaa gctcaggcgg aaggagcagc tatgggagaa gctggccaag cagggcgagc 480
 tgccccggga ggtgcgcagg gccccaggccc ggctcctcaa cccttctgca acaagggcca 540
 agccccgggc cccaggacac cgtagagcgg cccttctacg acctctgggc ctgagacaac 600
 cccctggaca ggccgttggt tggccaggat gagtttttcc tgggagcaga cccangaaga 660
 aaggagtga acggccagca cgctgcnc cccaagcccg tncca 705

<210> 84
 <211> 587
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 10, 33, 40, 59, 65, 66, 67, 80, 83, 84, 96, 101, 103, 107,
 113, 131, 143, 147, 163, 170, 171, 180, 182, 286, 560, 581
 <223> n = A,T,C or G

<400> 84
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 cgagnnnttg gattttgaan cgngaccccc ccacnaaga ntntantct atnacacttt 120
 gagctggaag natccgaaag gcnttcntgt tgagacttta ganactgaan ntaaggatcn 180
 anatatatca tatccccaag tggaatgaag aagaacgcaa aagaagagag cagcagaaac 240
 atgcaaaga acaggaggag ctgaatgatg ctgtgggatt ttctanagtc attcacgcca 300
 ttgctaattc gggaaaactt gttattggac acaatatgct cttggacgtc atgcacacag 360
 ttcatcagtt ctactgccct ctgcctgcgg acttaagtga gtttaaagag atgacaacat 420
 gtgttttccc cagactcttg gatactaaat tgatggccag cacacaacct tttaaggata 480
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 acccttctaa agttgaaagn ggccgaaaagg ttttccaagg nattgac 587

<210> 85
 <211> 620
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature

<223> n = A, T, C or G

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ggaaaccctg	cccacactat	gctcttaggc	tttagccatc	agaaggttac	agtggactgc	120
gggaggctga	cactaggctg	aactcattaa	ggaatgaatg	ggaggtgaga	agacacaggc	180
agcaagaatc	gagtgtttca	agaagtttg	ctctggtttg	ccagaaatag	gcaagtcagt	240
tttcgggggt	gngaggaaaa	agggttttgt	gtctttttta	aatcctagac	aggagagtca	300
caagcatgtt	cacatgataa	agaggaagaa	agagaaagag	gctggagatt	ctgaaaagag	360
atcactggtg	aggtctcaaa	agagatggaa	gaggatggtt	atgtagtttg	ggaaagaaaat	420
tttaagaagg	gaagaaaaat	aaaatgagtg	aaggatatac	ttagttttgt	aaaagttatc	480
aataatctgg	tgggcacant	gctcacacct	gtaatcccag	cactttggga	ggccanggc	540
ggcagatcat	ttgagggtcag	ganntgnaga	caagcctcca	ncatggtaaa	accctgtctc	600
tactaaaaat	accnaaaatt					620